

Title (en)  
EPICYCLIC GEAR SYSTEM

Title (de)  
PLANETENGETRIEBE

Title (fr)  
TRAIN PLANETAIRE

Publication  
**EP 1399682 B1 20050824 (EN)**

Application  
**EP 02742292 A 20020624**

Priority  
• US 0220069 W 20020624  
• US 89466501 A 20010628

Abstract (en)  
[origin: WO03002891A1] An epicyclic gear system (A) has a sun gear (2), a ring gear (4) located around the sun gear, and planet gears (6) located between and engaged with sun and ring gears. In addition, it has a carrier (8) including a carrier flange (30) offset axially from the planet gears, carrier pins (34) projecting from the carrier flange into the planet gears, and bearings (72) between the planet gears and the carrier pins so that the planet gears rotate on the pins. Each bearing includes an inner race (46) having tapered raceways (56) presented away from the carrier pin, opposing tapered raceways (24) on the ring gear, and tapered rollers (70) organized in two rows between the raceways. Whereas the carrier pin is cantilevered from the carrier flange, the inner race is cantilevered from the carrier pin remote from the carrier flange, and this insures that the axes (Y) about which the planet gears rotate remain parallel to the central axis (X) of the system.

IPC 1-7  
**F16H 1/28**

IPC 8 full level  
**F16C 25/08** (2006.01); **F16C 19/38** (2006.01); **F16C 33/36** (2006.01); **F16C 33/58** (2006.01); **F16H 1/28** (2006.01); **F16H 57/02** (2006.01); **F16H 57/08** (2006.01); **F16H 1/48** (2006.01)

CPC (source: EP US)  
**F16C 19/386** (2013.01 - EP US); **F16C 27/04** (2013.01 - EP US); **F16C 33/586** (2013.01 - EP US); **F16H 1/2836** (2013.01 - EP US); **F16H 57/082** (2013.01 - EP US); **F16C 33/605** (2013.01 - EP US); **F16C 2240/84** (2013.01 - EP US); **F16C 2361/61** (2013.01 - EP US); **F16H 1/48** (2013.01 - EP US)

Cited by  
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**WO 03002891 A1 20030109**; DE 60205746 D1 20050929; DE 60205746 T2 20060614; EP 1399682 A1 20040324; EP 1399682 B1 20050824; JP 2004531680 A 20041014; US 2003008748 A1 20030109; US 2004235604 A1 20041125; US 7056259 B2 20060606

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